330500 Velomitor Piezo-velocity Sensor

Datasheet

Cordant™

141632 Rev. V

Description

Bently Nevada™ Velomitor Piezo-velocity Sensors are designed to measure absolute (relative to free space) bearing housing, casing, or structural vibration. The 330500 is a specialized piezoelectric accelerometer that incorporates embedded integrated electronics in a solid-state design.

Because the 330500 incorporates solid-state electronics and has no moving parts, it does not suffer from mechanical degradation and wear, and can be mounted vertically, horizontally, or at any other angle of orientation

Most common machine malfunctions (unbalance, misalignment, etc.) occur on the rotor and originate as an increase (or at least a change) in rotor vibration. For any individual casing measurement to be effective for overall machine protection, the system must continually transmit a significant amount of rotor vibration to the machine casing, or mounting location of the transducer.

In addition, be careful to install the accelerometer transducer on the bearing housing or machine casing. Improper installation may decrease the transducer amplitude and frequency response and/or generate false signals that do not represent actual vibration. Refer to the appropriate instruction manuals and Application Notes.

Upon request, Bently Nevada provides engineering services that can identify the appropriate machine housing measurements and installation assistance if needed.

Baker Hughes

If you integrate the 330500 Velomitor output to measure displacement, electrical noise from interference and the transducer circuit can be amplified. The noise can degrade performance of 330500 transducers and produce inaccurate displacement data.

Part Number	Description
9571-NN	Two-conductor twisted, shielded 22 AWG cable with two-socket moisture-resistant female connector at one end, terminal lugs at the other end. Used with monitors. Not for use with 21128 Velocity Transducer Housing. Min. length: 2.0 ft (0.6 m) Max. length: 99 ft (30 m)
84661-NN	Two-conductor twisted, shielded 22 AWG armored cable with two-socket moisture-resistant female connector at one end, terminal lugs at the other end. Used with monitors. Not for use with 21128 Velocity Transducer Housing. Min. length: 3.0 ft (0.9 m) Max. length: 96 ft (29 m)
89477-NN	Two-conductor 18 AWG twisted, shielded cable with right angle two-socket plug at one end, terminal lugs at the other end. Used with monitors and with 21128 Velocity Transducer Housing. Min. length: 2.0 ft (0.6 m) Max. length: 99 ft (30 m)
125065-NN	Two-conductor 18 AWG twisted, shielded cable with two-socket plug and fluorosilicone elastomer boot at one end, terminal lugs at the other. Used with monitors. Not for use with 21128 Velocity Transducer Housing. Min. length: 2.0 ft (0.6 m) Max. length: 99 ft (30 m)

Velocity Transducer Housing Assembly

21128-AA-BB

A: Mounting Thread Option	
01	Unthreaded
02	3/4 - 14 NPT
03	1/2 - 14 NPT
04	1/2 - 12 BSP
B: Cable Exit Fitting Option	
01	1/2 - 14 NPT plug
02	1/2 -14 NPT explosion-proof
03	1/2 -14 NPT explosion-proof with cable gland seal

When using the 21128 Housing, cable part number 89477-AA is necessary to connect the Velomitor Sensor to a monitor.

Velocity Transducer Housing – CENELEC approved

107770-AA-BB

This version is a combination of the 330500 Velomitor Sensor and a 21128 Housing pre-installed at the factory. It is also rated for CENELEC Zone 1, Group IIC hazardous area applications.

A: Mounting Thread Option	
01	Unthreaded
02	3/4 - 14 NPT
03	1/2 - 14 NPT
04	1/2 - 14 BSP
B: Cable Exit Fitting Option	
01	1/2 - 14 NPT plug

02	1/2 - 14 NPT explosion-proof
03	1/2 - 14 NPT explosion-proof with cable gland seal